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**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION  
SPECIFICATION**

**SPARE PARTS-PECULIAR FOR ELECTRONIC, ELECTRICAL  
AND MECHANICAL EQUIPMENT**

**DISTRIBUTION: A-W (SM/PS/AP/  
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## 1. SCOPE AND PURPOSE

1.1 Scope. This specification establishes the requirements and procedures for providing spare parts-peculiar to be furnished for the maintenance of electronic, electrical and mechanical equipment covered by an invitation to bid or request for proposal, order or contract to which this specification also applies; and alerts the contractor to possible incentive provisions for minimizing parts-peculiar in a contract without degrading functional requirements.

1.2 Purpose. This specification has a three-fold purpose.

a. To insure that any special or selected part designed as a part-peculiar will be available for supply support concurrent with delivery of the first end article.

b. To realize reductions in future government supply costs by providing contractors with financial incentive to use as few parts-peculiar as possible in their design of the end article.

c. To permit FAA to maintain identity of parts-peculiar to ensure positive control during the life cycle of the equipment.

## 2. APPLICABLE DOCUMENTS

2.1 Military Standards and Specifications. The following documents, of the issue in effect on the date of the invitation to bid or request for proposals, form a part of this specification to the extent specified herein:

MIL-STD-129	Marking for Shipment and Storage
MIL-STD-280	Definitions of Item Levels, Item Exchangeability, Models, and Related Terms
MIL-STD-1189	Standard DOD Bar Code Symbology
MIL-E-17555	Packaging and Packing of Electronic and Electrical Equipment
MIL-STD-1388-2	DOD Requirements for a Logistic Support Analysis Record

2.2 Other Government Documents and Publications. The following other Government documents and publications form a part of this specification to the extent specified herein:

Federal Supply Cataloging Handbook-Federal Item Name Directory, H6 Series.



2.3 Obtaining Documents. Copies of specifications, standards, and publications required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the Contracting Officer.

3. DEFINITIONS. For the purpose of this specification, the following definitions shall apply.

3.1 Item. A nonspecific term used to denote any product, including systems, materials, parts, subassemblies, sets, accessories, etc. (Source: MIL-STD-280A)

3.2 Item Levels. Item levels from the simplest division to the more complex are defined in MIL-STD-280A as:

- Part
- Subassembly
- Assembly
- Unit
- Group
- Set
- Subsystem
- System

3.3 Part. One piece, or two or more pieces joined together, which are not normally subject to disassembly without destruction of designed use. (Source: MIL-STD-280A)

3.3.1 Printed Wiring Board. An insulated panel upon which completely processed electrical conductor paths are deposited, etched, or printed in various patterns to provide or complete a circuit between two or more points. (Source: Handbook H6)

3.3.2 Printed Circuit Board. A printed wiring board having only printed electronic parts, such as capacitors, resistors and coils. (Source: Handbook H6)

3.4 Subassembly. Two or more parts which form a portion of an assembly or a unit, replaceable as a whole, but having a part or parts which are individually replaceable. (Source: MIL-STD-280A)

3.5 Assembly. A number of parts or subassemblies or any combination thereof joined together to perform a specific function and capable of disassembly. (Source: MIL-STD-280A)

NOTE: The distinction between an assembly and a subassembly is determined by the individual application. Any assembly in one instance may be a subassembly in another where it forms a portion of a higher level assembly.

3.5.1 Circuit Card Assembly. A grouping of two or more physically connected or related electrical and/or electronic parts capable of disassembly. Each part of the assemblage must be capable of functioning in accordance with its own item name. It consists of a single printed wiring board upon which are mounted separately manufactured electronic parts. (Source: Handbook H6)

3.5.2 Electronic Components Assembly. A grouping of two or more different types of electrical/electronic parts mounted on a common mounting. It may include an assembly of electrical/electronic parts mounted on multiple printed wiring boards mounted back to back, stacked or similarly configured. (Source: Handbook H6)

3.6 Unit. An assembly or any combination of parts, subassemblies, and assemblies mounted together, normally capable of independent operation in a variety of situations. (Source: MIL-STD-280A)

3.7 Group. A collection of units, assemblies, or subassemblies which is not capable of performing a complete operational function. A group may be a subdivision of a set or may be designed to be added to or used in conjunction with a set to extend the function or the utility of the set. (Example: Antenna group) (Source: MIL-STD-280A)

3.8 Set. A unit or units and necessary assemblies, subassemblies and parts connected together or used in association to perform an operational function. (Example: Radio receiving set, sound measuring set, radar homing set, which include parts, assemblies and units such as cables, microphone and measuring instruments.) ("Set" is also used to denote a collection of related items such as a "tool set", "drawing set," or a "set" of tires.) (Source: MIL-STD-280A)

3.9 Subsystem. A combination of sets, groups, etc., which performs an operational function within a system and is a major subdivision of the system. (Source: MIL-STD-280A)

3.10 System, Electrical-electronic. A combination of two or more sets, which may be physically separated when in operation, and such other assemblies, sub-assemblies and parts necessary to perform an operational function or functions. (Examples: AEW electronic system, antiaircraft defense system, telephone carrier computer, and gun mount.) (Source: MIL-STD-280A)

3.11 Line Replaceable Unit (LRU). An item which may consist of a unit, an assembly (circuit card assembly, electronic component assembly, etc.), a subassembly, or a part, that is removed and replaced at the site maintenance level in order to restore the system/equipment to its operational status.

3.12 Part Common. An item which is routinely and ordinarily obtainable from one or more sources, including the prime contractor at the time of contract award. The item must be listed explicitly in a vendor or supplier catalog or be readily available as a bonafide established stock item at the time of award of the contract or order, and be recurringly manufactured, fabricated or assembled for common use to government, industry or commercial specification, drawing or standard.

3.13 Part-Peculiar. Any item, from a simple part up to and including a unit, that can be defined or classified by one or more of the following statements:

1. An item that was designed, developed, assembled or fabricated by the contractor or by a vendor to the contractor's procurement specifications and meets the criteria of paragraph (2) below.

2. An item that was not listed explicitly in a vendor or supplier catalog, or was not readily available as a bona fide established stock item at the time of award of the contract or order.

3. A part common that has been modified in any way to accommodate a specific environment.

4. A part common that has been selected for closer tolerance than the commercial production tolerances.

5. Two or more parts common that have been selected for identical tolerances so as to be used as a matched pair or set.

#### 4. REQUIREMENTS

4.1 Spare Parts-Peculiar Requirements. Except as set forth below and items excluded in paragraph 4.1.1, the contractor shall furnish as spare parts all items that meet the definitions of both part-peculiar (paragraph 3.13) and line replaceable unit (paragraph 3.11) in the quantities specified in paragraph 4.2.1. All spare parts furnished shall meet all specification requirements applicable to the items in the equipment for which they are furnished, and shall be identical to the items they replace. Circuit Card Assemblies and Electronic Component Assemblies (see paragraphs 3.5.1 and 3.5.2) that are furnished as spare parts shall include their Printed Wiring Board or Boards (see paragraph 3.3.1) and all electrical/ electronic parts mounted on board(s) whether wired-in, plugged-in, or both. In addition

any electrical/electronic parts mounted on these board(s) that meet the definition of a part-peculiar shall be furnished separately in the quantities specified in paragraph 4.2.1 but the printed wiring board by itself shall not be furnished separately, even if it meets the definition of a part-peculiar.

4.1.1 Spare Parts-Peculiar Exclusions. The following items shall not be provided as spare parts-peculiar:

a. Structured parts not subject to wear-out or failure, such as chassis, panels, frames, stiffeners and ancillary structural elements which are nonfunctional from the standpoint of the purpose of the parent equipment.

b. Special programmed ROMs, PROMs and EPROMs provided that the contract requires the contractor to furnish digital information documentation and a master of the program data for each differently configured digital memory storage device.

4.2 Quantity. The contractor shall provide to the FAA the quantity of spare parts-peculiar for the FAA Depot stock as computed per paragraph 4.2.1 and be prepared to provide an additional lot or lots per paragraph 4.2.2.

4.2.1 Computed Quantity of Spares. The quantity of spare parts-peculiar, shall be computed by the following formula:  
Quantity of part-peculiar spares to be furnished = Total number of equipments ordered X total quantity of the part-peculiar used per equipment X a percentage factor of five (.05). (Exception: fuses and lamps will be computed at 100%). Fractional quantities shall be adjusted upwards to the next whole number. A minimum of three each, of each item shall be furnished whenever the total quantity developed as specified herein is less than three.

Example: There are 67 equipments on a contract. The number of part-peculiar, identical IF transformers in each equipment is 2. The Part-Peculiar Percentage Factor is 5.

Quantity =  $67 \times 2 \times 0.05 = 6.7 = 7$ , adjusted to the next whole number.

4.2.2 Additional Quantity of Spares. In addition to the computed quantity of spares required under paragraph 4.2.1, the contractor shall furnish additional spare parts-peculiar as required, for the duration of the contract. The quantity of these additional spare parts-peculiar, if any, will be determined by the FAA. The contractor will receive notification, through the Contracting Officer, of the quantities and the delivery schedule. These

quantities will be incorporated in the contract by an appropriate contract modification. The unit price to be paid by the Government for each spare part-peculiar will be fair and reasonable. In the event the FAA and the contractor are unable to reach a mutual agreement on the unit price or prices, the Contracting Officer will establish the price or prices by issuing a Change Order which the contractor shall comply with immediately. The contractor may then submit a proposal which sets forth their proposed price or prices for subsequent negotiations between the parties. If agreement cannot be reached through the negotiation process, the Contracting Officer will issue a final decision which will be considered a question of fact and be determined in accordance with the "Disputes" clause of the contract. The terms of the contract will take precedence over the terms stated herein.

4.3 Documentation. Those parts-peculiar, as defined by paragraph 3.13, that the contractor proposes to spare shall be documented in accordance with the requirements of paragraph 4.3.1 through 4.3.8.

4.3.1 Preparation of Spare Parts-Peculiar List. The contractor shall prepare a spare parts-peculiar list in accordance with the following instructions. The list shall be in the format illustrated in Figure 1 - Spare Parts-Peculiar List. Copies of the list shall be legible and prepared on durable white paper that will accept ink, pencil or typewriter insertions. Only one side of a page shall be used. Reproduced copies shall conform to the size limitations stated in 4.3.2.

4.3.2 Size. Page size shall not be less than 8 1/2 (L) by 11 (W) inches nor more than 11 (L) by 17 (W) inches.

4.3.3 Bindings. Each copy of the spare parts-peculiar list shall be securely bound at the top center of the document by a removable metallic paper fastener. The format shall be arranged so that data will not be obscured on the top margin of any page of the document. Each copy shall be protected by a file folder or cover of paperboard on the front and back.

4.3.4 Markings. The front cover of each spare parts-peculiar list shall include the following information:

- (a) The contractor's end article model designation or Federal Aviation Administration nomenclature, as applicable.
- (b) The contractor's name.
- (c) The contract number.
- (d) Type of list, that is, Spare Parts-Peculiar List.

4.3.5 Data Required. Spare parts-peculiar shall be listed in alphanumeric sequence by contractor's part number. The data specified in Figure 1 - Spare Parts-Peculiar List is a minimum requirement and shall be prepared as follows:

(a) Column 1, Item or Sequence Number, 6 digits. This block is used for sequential item control, commencing with the first line item entry on the listing and continuing in numerical sequence to the last line item entry on the listing. The first four positions of the Item or Sequence Number shall be for numeric sequential control of line items on the list, for example, 0001, 0002, 0003. The fifth and sixth digits are to be used for any changes to the list subsequent to submission to the FAA, as provided for in paragraph 4.3.6.

(b) Column 2, LSA Control Number, 11 digits. The Logistics Support Analysis Control Number (LCN) for the specific part-peculiar developed in accordance with MIL-STD-1388-2A shall be inserted in this block to provide cross-indexing with the Logistic Support Analysis Record (LSAR) for the end item.

(c) Column 3, National Stock Number, 19 digits. This block is to be left blank.

(d) Column 4, Item Name, 15 digits. The item name, as contained in and defined by Federal Supply Cataloging Handbook-Federal Item Name Directory, H6 Series shall be inserted in this block. When an item name is not contained in Handbook H6, the contractor shall assign a name to the item. Contractor assigned names are subject to review by FAA to assure adherence to Federal Supply Catalog System standards.

(e) Column 5, Part Number, 16 digits. This block is used to indicate the contractor's part, drawing or catalog number assigned to the item.

(f) Column 6, Total Used Per Contract, 4 digits. The contractor shall insert a figure indicating the total number of times the item is used in all of the equipments or systems being furnished on the contract.

Example when all systems are identical in size and configuration: There are 20 systems on the contract. The number of XYZ resistors per system is 10. The quantity to be included in column 6 is 200,  $10 \times 20 = 200$ .

Example when all systems are not identical in size and configuration: There are 3 configurations of equipments on the contract. The number of XYZ resistors used in Printed Circuit Board (PCB) A is 2. PCB A is used one time in system configuration #1, two times in system configuration #2 and three times in system

configuration #3. The quantity to be included in column 6 is (2 X 1 X number of configuration #1 systems) + (2 X 2 X number of configuration #2 systems) + (2 X 3 X number of configuration #3 systems).

(g) Column 7, Percentage Factor From Paragraph 4.2.1, 4 digits. The contractor shall insert the percentage factor extracted from paragraph 4.2.1 of this specification.

(h) Column 8, Quantity to be Furnished, 4 digits. The contractor shall insert the quantity of each item to be furnished as computed in paragraph 4.2.1.

(i) Column 9, Shelf Life, 4 digits. The contractor shall insert a number to indicate the expected shelf life in months for items having characteristics which limit their storage or shelf life. The letters IND shall be inserted for items having an indefinite storage or shelf life, that is, unlimited under reasonable care.

(j) Column 10, Unit Cost, 11 digits. The contractor shall enter the cost of each item being furnished. The cost of an item as entered in this column is needed for FAA inventory management purposes, and is not required to be a proposed or offering price for any additional quantities of the item the contractor may be required to furnish under paragraph 4.2.2.

(k) Column 11, Extended Cost, 12 digits. The contractor shall insert a figure that represents the total cost of the items being furnished as derived by multiplying the figure in Column 8 by the figure in Column 10.

(l) Column 12, Remarks. The contractor may enter in this block any data considered pertinent to the line item entry that cannot be described by the standard data blocks.

4.3.6 Changes in the Spare Parts-Peculiar List. In the event a change of any kind is required to be made in the spare parts-peculiar list after submission to the FAA, the contractor shall prepare the corrected page or pages with the date of correction shown thereon, and make distribution in accordance with paragraph 4.3.8 within 30 calendar days of such change. The fifth and sixth digits of the item or sequence number in Column 1 shall be used to indicate additions, deletions, modifications, typographical errors, and quantity changes, as follows:

(a) Additions. Use the fifth digit to indicate items added to the list. New part numbers should be added in their proper alphanumeric sequence. Letter additions beginning with the letter A in alphabetical sequence, except do not use the letters D, I, M, O, Q, and T.

(b) Deletions, Modifications, Typographical Errors and Quantity Changes. The sixth digit shall be used to indicate deletions, modifications, typographical errors and quantity changes. A deleted item shall be indicated by a "D" and is required to identify items shown on the list which were never used in the production equipment or were completely removed from the production equipment during subsequent production. A modified item shall be indicated by an "M" and is required when a change occurs in the part number or item name. A typographical error correction shall be indicated by "T". Quantity changes in column 6 or 8 shall be indicated by a "Q".

4.3.6.1 Examples.

<u>Digits Allocated for Column 1</u>						<u>How Used</u>
<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	
0	0	1	0			Items as originally listed.
0	0	1	0	A		First addition after line 0010 and before line 0011.
0	0	1	1		D	Item deleted.

4.3.7 Copies Required. One reproducible master and five copies shall be furnished to the FAA in accordance with paragraph 4.3.8.

4.3.8 Submission of the Spare Parts-Peculiar List. Unless otherwise specified in the contract, the spare parts-peculiar list shall be submitted to the FAA at least 30 calendar days prior to the production start date of the equipment component parts or 30 calendar days prior to Critical Design Review (CDR) whichever is the earliest. The contractor shall submit the spare parts-peculiar list to the FAA as follows:

(a) Two copies to the contracting officer

(b) One reproducible master and two copies to:

FAA Mike Monroney Aeronautical Center  
6500 South MacArthur Blvd.,  
P.O. Box 25082  
Oklahoma City, Oklahoma 73125  
Attention: AAC-485

(c) One copy shall be retained by the contractor for the FAA Quality and Reliability Officer (QRO).

5. QUALITY ASSURANCE PROVISIONS

5.1 General. The quality assurance provisions as specified in the equipment specification shall be applicable to spare parts-peculiar.

## 6. PREPARATION FOR DELIVERY

6.1 Preservation, Packaging, Packing and Marking of Parts-Peculiar. Unless otherwise stated in the contract or order, the preservation, packaging, packing and marking of spare parts-peculiar shall be in accordance with MIL-E-17555. Preservation and packaging shall be Level A and packing shall be Level C.

6.2 Packing List. A packing list for each spares shipping container shall be provided in accordance with MIL-STD-129. Each line item in the shipping container shall be identified on the packing list with the following data, as a minimum: item name, manufacturer's part number, manufacturer's code, National Stock Number as provided, and the quantity therein. All containers shall be marked in accordance with Military Standards MIL-STD-129, "Marking for Shipment and Storage", and MIL-STD-1189, "Standard DOD Bar Code Symbolology."

6.3 Delivery. Delivery shall be in accordance with the contract schedule unless delivery is not specified therein. If not specified in the contract schedule, delivery of spare parts-peculiar shall be made in not more than two lots, as follows:

a. Lot Number 1. Lot No. 1 shall consist of not less than 50% of the total quantity of each part-peculiar to be furnished. This Lot No. 1 shall be delivered concurrently with delivery of the first end article in which the parts-peculiar are used. Where 50% would result in less than two units, at least two of the parts-peculiar shall be included in Lot No. 1.

b. Lot Number 2. Lot No. 2 shall consist of the remaining quantities of each spare part-peculiar to be furnished. This Lot No. 2 shall be delivered not later than upon delivery of the first 50% of the quantity of end articles in which the spare parts-peculiar are used. Partial delivery of Lot No. 2 may be permitted at the option of the Government on receipt of request from the contractor justifying such action.

6.4 Delivery Point. Unless otherwise specified in the contract or order, the initial spare parts-peculiar delivered under this specification shall be shipped to:

FAA Mike Monroney Aeronautical Center  
P.O. Box 25082  
6500 South MacArthur Blvd.,  
Oklahoma City, Oklahoma 73125  
Attention: Receiving Dock, Mark for: Operating Stock

7. NOTES

7.1 Note on Information Items. The contents of this Section 7 are only for the information of the initiator of the procurement request and are not a part of the requirements nor binding on either the Government or the contractor. In order for these terms to become a part of the resulting contract, they must be specifically incorporated in the schedule of the contract. Any reliance placed by the contractor on the information in this subparagraph is wholly at the contractor's own risk.

7.2 Incentive to Minimize Parts-Peculiar. Use of parts-peculiar in the design of FAA equipment should be discouraged to the greatest extent practical, due to the uncertainties of reliability factors and future support costs. When so stated in the solicitation, evaluation criteria will include considerations for not using parts-peculiar. In addition, the contractor's design efforts, resulting in the minimal use of parts-peculiar, can have an immediate financial benefit. The quantity of parts to be delivered under the parts-peculiar line item on the contract may be reduced through the design effort from the quantity used to establish the price in the contract, without a corresponding reduction in contract price, thus permitting the contractor to share in the governments life-cycle cost reduction.

Date \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_

Contractor \_\_\_\_\_ Equipment Model \_\_\_\_\_ Contract \_\_\_\_\_

Item or Sequence Number	LSA Control Number	National Stock Number	Item Name	Part Number	Total Used Per Contract	% Factor	Total Qty Furn.	Shelf Life	Unit Cost	Extended Cost	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)

FIGURE 1 - SPARE PARTS-PECULIAR LIST

